

What is claimed is:

- 1 1. A resistive element, comprising:
 - 2 a first contact point connected to a capacitor terminal;
 - 3 a second contact point connected to a circuit board plane; and
 - 4 a resistive material connected to the first and second contact points.
- 1 2. The resistive element of claim 1, wherein the first contact point is connected to the capacitor terminal using solder, and wherein the second contact point is connected to the circuit board plane using at least one via.
- 1 3. The resistive element of claim 1, wherein the resistive material includes a first metal.
- 1 4. The resistive element of claim 3, wherein the first metal is nickel.
- 1 5. The resistive element of claim 3, wherein the resistive material includes a second metal.
- 1 6. The resistive element of claim 5, wherein the second metal is gold.
- 1 7. The resistive element of claim 6, wherein the first and second metals have a width of about 10 to about 1000 microns, a length of about 10 to about 5000 microns, and a total thickness of about 0.05 to about 2.5 microns.
- 1 8. The resistive element of claim 1, wherein the resistive material includes a conductive epoxy.
- 1 9. The resistive element of claim 1, wherein the resistive material includes a resistive component selected from a group consisting of: a metal, a conductive metal oxide, a glass, a solvent, a polymer, nickel, chromium, tantalum, oxynitride, silicon

4 monoxide, cobalt, alumina, sapphire, quartz, berillium, palladium, carbon, platinum,
5 ruthenium, rhodium, and gold.

1 10. The resistive element of claim 1, wherein the second contact point is
2 connected to the circuit board plane using a plurality of vias.

1 11. The resistive element of claim 1, wherein a summed series resistance
2 provided by adding a value of resistance for the resistive element to an effective
3 series resistance of the capacitor is approximately equal to an effective series
4 resistance of a circuit board capacitor and a circuit board plane connected to the
5 circuit board capacitor.

1 12. A circuit board, comprising:
2 a capacitor having a terminal;
3 a power supply plane; and
4 a resistive element including a first contact point connected to the terminal
5 of the capacitor, a second contact point connected to the power supply plane, and
6 a resistive material connected to the first and second contact points.

1 13. The circuit board of claim 12, wherein the first contact point is connected to
2 the terminal of the capacitor using solder, and wherein the second contact point is
3 connected to the power supply plane using at least one via.

1 14. The circuit board of claim 13, wherein the resistive material includes a first
2 metal and a second metal.

1 15. The circuit board of claim 14, wherein the first metal is nickel and the
2 second metal is gold.

1 16. The circuit board of claim 12, wherein the resistive material is selected from
2 a group consisting of: a metal, a conductive metal oxide, a glass, a solvent, a

3 polymer, nickel, chromium, tantalum, oxynitride, silicon monoxide, cobalt, alumina,
4 sapphire, quartz, berillium, palladium, carbon, platinum, ruthenium, rhodium, and
5 gold.

1 17. The circuit board of claim 12, wherein a summed series resistance provided
2 by adding a value of resistance for the resistive element to an effective series
3 resistance of the capacitor is approximately equal to an effective series resistance of
4 a circuit board capacitor and an effective series resistance of the power supply plane
5 connected to the circuit board capacitor.

1 18. A circuit package, comprising:
2 a circuit element;
3 a first terminal connected to the circuit element; and
4 a second terminal connected the circuit element and to a first contact point of
5 a resistive element including a second contact point for connection to a power
6 supply plane.

1 19. The circuit package of claim 18, wherein the circuit element is a capacitor.

1 20. The circuit package of claim 18, wherein the circuit element includes at least
2 one transistor.

1 21. The circuit package of claim 18, wherein the circuit package has an outside
2 surface to which the resistive element is attached.

1 22. The circuit package of claim 18, wherein a summed series resistance
2 provided by adding a value of resistance for the resistive element to an effective
3 series resistance of the circuit element is approximately equal to an effective series
4 resistance of a circuit board capacitor connected to the power supply plane added to
5 an effective series resistance of the power supply plane.

1 23. A method fabricating a circuit board, comprising:
2 selecting an amount of equivalent series resistance for a resistive element
3 including a first contact point and a second contact point;
4 selecting a type of material for the resistive element;
5 fabricating at least one layer of the circuit board having a pad and a via for
6 connection to a power plane of the circuit board;
7 depositing the resistive element on the layer of the circuit board so as to
8 connect the first contact point to the pad and to connect the second contact point to
9 the via.

1 24. The method of claim 23, wherein depositing the resistive element on the
2 layer of the circuit board so as to connect the first contact point to the pad and to
3 connect the second contact point to the via further comprises:
4 screening the resistive element onto the layer of the circuit board.

1 25. The method of claim 23, wherein depositing the resistive element on the
2 layer of the circuit board so as to connect the first contact point to the pad and to
3 connect the second contact point to the via further comprises:
4 plating the resistive element onto the layer of the circuit board.

1 26. The method of claim 23, wherein selecting an amount of equivalent series
2 resistance for a resistive element further comprises:
3 selecting a value of resistance for the resistive element such that a summed
4 series resistance provided by adding the value of resistance for the resistive element
5 to an effective series resistance of a first capacitor is approximately equal to an
6 effective series resistance of a second capacitor attached to the circuit board added
7 to an effective series resistance of the power plane.